

BILSTON URBAN DISTRICT COUNCIL.

❖ 1913. ❖

ANNUAL REPORT

OF THE

Medical Officer of Health,

T. RIDLEY BAILEY, M.D., EDIN.

Past-President of the Midland Branch, and Representative Member on the Central Council, of the Incorporated Society of Medical Officers of Health; Chairman of the County of Stafford Medical and Panel Committees; Ex-president of the Staffordshire Branch of the British Medical Association; School Medical Officer, &c, &c.

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BILSTON :

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TO THE CHAIRMAN AND MEMBERS OF THE BILSTON
URBAN DISTRICT COUNCIL.



Gentlemen,
Herewith I beg to present to you the Report on the Health and Sanitary condition of the District under your control, together with the Vital Statistics for the year 1913; this being my Twenty-Ninth Annual Report.

Bilston is situated on rising ground at a height of about 450 feet above the sea level, and has long been recognised as a centre of the hard ware trade, where formerly also iron and coal mines existed. The chief industries now are ironfoundries, steel works, and works for the manufacture of tinplate goods, japanned and enamelled wares, boilers, &c. It is included in the parliamentary borough of South Wolverhampton.

The population at the Census, 1911, was 25,681, (12,804 males and 12,877 females), being an increase of 1,647 over the census of 1901. Calculating from this basis with the "factor" supplied by the Registrar General for this district (0.9888) the population at the middle of the year 1913 is estimated at 26,076.

The following table gives the population of each ward at various ages, and distinguishing sex.

CENSUS 1911.

AGES.	Bradley Ward.		Ettingshall Ward.		High Town Ward.		New Town Ward.		Town Hall Ward.		Total of Bilston U.D.	
	Males	F'ales	Males	F'ales	Males	F'ales	Males	F'ales	Males	F'ales	Males	F'ales
All ages ...	2114	2092	2428	2408	2527	2484	3105	3127	2630	2766	12804	12877
Under 1 year	64	73	73	80	57	64	89	92	73	70	356	379
One & under 5 years ...	208	251	250	270	269	251	359	334	244	258	1330	1364
5 years & under 15 years	500	524	566	554	568	592	564	741	557	542	2855	2953
15 y'rs & under 25 years	389	368	455	437	503	444	570	596	488	543	2405	2388
25 y'rs & under 65 years	870	789	1010	970	1048	1010	1323	1229	1164	1220	5415	5218
65 y'rs & under 80 years	79	81	67	91	76	112	96	123	93	123	411	530
80 years and upwards ...	4	6	7	6	6	11	4	12	11	10	32	45

The area of the District is 1,867 acres, and the rateable value about £83,000. The length of roads is 22·986 miles, 5·210 main roads, 14·488 other roads, and 3·288 private streets. The general District Rate is $\frac{4}{2}$, and the Poor Rate is $\frac{5}{6}$ in the pound. The amount spent on outdoor poor relief last year was £2,992 19s. 9d.

Sanitary Circumstances of the District.

Water Supply.—The water is derived from deep Artesian Wells, and the works at the Bratch constitute one of the Council's most valuable assets. The supply is constant, and the water continuing of excellent quality. Only last month the Public Analyst reported—"That the organic purity of this water remains most excellent, the fact that it is somewhat "hard" being the only adverse feature."

Subjoined are copies of Analysis made by Mr. E. W. T. Jones, of water drawn from the tap in the basement of the Town Hall.

ANALYSIS OF WATER.

Description.	March 17th, 1913 Grains per gallon	August 27th, 1913 Grains per gallon
Total Solid Matter dried @ 212 degrees F.	28·56	29·96
Free and Saline Ammonia	0·000	0·0012
Albuminoid Ammonia	0·0014	0·0013
Nitric Nitrogen	0·58	0·63
Combined Chlorine	1·68	1·68
Oxygen absorbed in 4 hours @ 80 degrees F.	0·004	0·005
Color through 2 feet	very pale bluish-green tinge	very pale bluish tinge
Appearance	clear	clear
Hardness before boiling	17·58°	18·00°
Hardness after boiling	7·21°	6·90°
Temporary Hardness	10·37°	11·10°
Bacteriological Exam.	Organisms per C.C.	Organisms per C.C.
On gelatine @ 20 degrees C.	9	6
On agar-agar @ 37 degrees C.	1	2
" " " acidified & phenolized 0	...	1

The temporary hardness has slightly increased, otherwise the water is the same as a year ago, organically it is very good. This water is still of excellent quality for drinking purposes.

(Signed), E. W. T. JONES, F.I.C.

The following tables, kindly supplied by the Engineer, show that the total pumped last year was 294 million gallons, an increase of about $8\frac{1}{4}$ millions on the preceding year.

The consumption for Council purposes was slightly increased owing to the increased quantities used for sewer flushing.

The Domestic Consumption, including all un-metered supplies and waste, totals 197 millions—rather less than in the two preceding years—and gives an average daily consumption of 15·01 gallons per head, which is the lowest yet recorded.

It must be remembered that the water area includes our own town, the greater part of the Urban District of Coseley, and part of the Rural District of Seisdon.

Table showing total quantity of Water pumped for 10 years, and for each Month in the Year.
1904 to 1913.

MONTH.	1904	1905.	1906.	1907.	1908.	1909.	1910	1911.	1912.	1913.
	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.
JANUARY ...	18,854,500	21,514,500	21,525,075	27,387,075	26,887,575	29,139,825	21,353,475	23,459,150	22,443,850	23,430,550
FEBRUARY ...	17,934,000	19,285,000	20,938,775	23,409,100	23,502,050	24,574,550	20,184,450	22,914,750	26,458,575	20,974,325
MARCH ...	19,160,050	21,658,000	23,587,850	25,114,375	24,038,300	29,354,325	22,190,025	23,677,225	21,546,525	22,464,625
APRIL ...	18,403,000	20,044,500	23,484,175	23,813,075	23,884,575	27,195,025	21,364,200	22,679,800	21,385,650	24,234,925
MAY ...	18,844,000	22,267,000	24,456,575	25,160,850	27,181,025	29,079,050	21,757,450	25,325,300	25,614,875	25,361,050
JUNE ...	21,080,500	23,345,000	24,535,225	22,256,949	26,269,100	25,532,650	25,060,750	25,636,325	25,686,375	25,325,300
JULY ...	24,889,900	24,929,200	26,572,975	27,606,150	28,316,502	26,261,950	24,252,800	29,179,150	26,136,825	26,658,775
AUGUST ...	20,862,800	23,573,550	26,634,475	28,612,900	26,615,875	25,737,855	23,437,700	27,595,425	24,034,725	26,537,225
SEPTEMBER ...	20,319,250	23,359,050	26,619,450	25,428,975	24,996,400	24,124,100	24,342,175	25,157,275	23,233,925	25,670,625
OCTOBER ...	19,904,500	22,715,550	14,746,150	23,891,725	27,245,075	23,205,325	24,756,875	22,458,150	23,412,675	25,153,700
NOVEMBER ...	20,016,500	21,703,825	24,520,925	24,063,300	25,765,025	22,057,750	22,590,425	21,782,475	22,908,600	23,748,725
DECEMBER ...	21,493,500	22,636,900	24,231,350	23,283,975	26,765,372	23,407,670	23,705,825	21,178,300	23,040,875	24,685,375
TOTALS...	241,762,500	267,032,075	291,853,000	300,058,449	311,757,874	309,670,075	274,990,150	290,043,325	285,903,475	294,225,490

ANALYSIS OF WATER CONSUMPTION.

	Business by Meter.			Water for Council Purposes.			Domestic Supply including Waste and all unmetered Supplies.			Total Consumption for all Purposes.			Estimated Population supplied.
	Total for Year.	Av. per day.	Av. per day per head.	Total for Year.	Av. per day.	Av. per day per head.	Total for Year.	Av. per day.	Av. per day per head.	Total for Year.	Av. per day.	Av. per day per head.	
1906. 365 Days.	65,163,741	178,613	5.19	6,892,000	18,882	.55	219,767,259	602,102	17.53	291,853,000	799,597	23.27	34,360
1907. 365 Days.	67,841,197	185,865	5.40	6,065,000	16,616	.48	226,152,252	619,595	18.01	300,058,449	822,078	23.89	34,410
1908. 366 Days.	60,467,268	165,211	4.79	12,729,000	34,778	1.01	238,561,606	651,898	18.88	311,757,874	851,697	24.68	34,510
1909. 365 Days.	64,138,000	175,720	5.09	10,757,000	29,471	.85	234,775,075	643,220	18.64	309,670,075	848,410	24.58	34,510
1910. 365 Days.	74,065,000	202,918	5.88	7,775,000	21,301	.62	193,156,150	529,195	15.33	274,996,150	753,414	21.83	34,510
1911. 365 Days.	81,780,000	224,055	6.49	10,329,000	28,299	.82	197,934,325	542,285	15.71	290,043,325	794,639	23.03	34,510
1912. 366 Days.	79,577,000	217,423	6.05	7,465,000	20,396	.57	198,861,475	543,332	15.13	285,903,475	781,157	21.76	35,900
1913. 365 Days.	83,713,000	243,049	6.75	8,282,000	22,620	.63	197,230,400	540,357	15.01	294,225,400	806,096	22.39	36,000

Drainage and Sewerage.

Through the kindness of the Surveyor I am enabled to give the following details.

The Sewers.—Sewer flushing has been regularly carried out by the van and automatic tanks, and 1,505,000 gallons of water were used for this purpose, as compared with 471,000 gallons in the preceding year, and 270,000 in 1911.

Further sewers have been constructed in Bradley for a length of 500 yards, some 190 houses can be drained to the disposal works. These, with the exception of the Moxley Sewers, complete the work approved by the Local Government Board early in 1912.

Sewage Disposal Works.—These works continue to operate satisfactorily, the analysis of effluents maintain their high standard, and the County Medical Officer of Health again reports favourably on them.

Below the quantities of Lime, R.V. Oil and Aluminoferric used, and also the number of Sludge Tanks pumped out are given.

	LIME.	R. V. O.	ALUMINOEERRIC.	TANKS.
1910	290 tons	2,748 galls.	6 tons	163
1911	280 „	2,640 „	7 „	160
1912	285 „	2,724 „	3 „	160
1913	250 „	2,841 „	6 „	110

These figures show a very considerable reduction in the Lime consumption, and it would appear that the circular letter sent to manufacturers in March last has resulted in additional precautions being taken to prevent the access of acids to the sewers. The average monthly consumption for the first six months of the year was 25 tons per month, whilst for the last six months of the year it dropped to 15·5 tons. The total for the year is the lowest recorded since the inauguration of the works.

The vapourising oil shews a small increase which is probably accounted for by the trouble experienced with the engines in the early part of the year. The cost of oil has increased greatly during the past 12 months, and in view of this, consideration is being given to a proposal to utilize electrical power at the works in future.

In the early part of the summer sludge caused very considerable difficulty. This was largely due to the wet season of 1912 preventing the clearing of the drying areas, and the very heavy consumption of lime and resultant large production of sludge during the winter filling the area which was available.

However the dry summer enabled the whole of the ground to be cleared, and it is estimated that about 8,000 cubic yards of partially dried sludge were removed at a cost of about £194, or just under 6d. per cubic yard.

Excrement Disposal—During the year 351 water-closets were substituted for 93 vault privies, 119 privy-middens, and 98 pans or pails. 426 houses were provided with water-closets, one closet being used by two tenants in a large number of cases.

It is estimated that there are now in all 2,220 water-closets, which means that rather more than half of the town is now on the water carriage system and connected to the Disposal Works, and that at the end of the year there were still in use 593 privy-vaults, 681 privy-middens, and 489 pails.

A large proportion of the Inspector's time is taken up with the supervision of all these conversions, necessarily at the expense of time required for other duties. The amount of money, too, expended by owners in making these conversions prevents them—at least in many cases—carrying out housing repairs fully.

132 yards have had the paving relaid or repaired, in large yards a 3 ft. space is paved adjoining the houses, and the remainder covered with ashes.

The scavenging is now carried out by the District Council, under the supervision of the Surveyor. The house refuse is still deposited on "tips" as there is no destructor, and in its collection it is frequently first deposited in the road, and this is very objectionable.

The disgusting privy-middens—always a source of soil contamination—are steadily being removed: a much needed improvement.

During the past year the following quantities of house refuse have been removed:—

				1913.	6½ months, 1912.
Motor Loads.	Dry	...	...	1,314	674
Cart Loads.	Dry	...	...	2,799	1,751
Cart Loads.	Wet	...	...	1,101	779

The dry refuse is equal to about 35 cart loads per day, which is almost identical with the average amount removed daily during the shorter period of last year.

The wet refuse is rather lower than last year and this is to be expected with the abolition of 93 Vault Privies and 98 Pans.

The disposal of the wet refuse by tipping into sewers continues to work satisfactory, and, beyond a temporary stoppage of the Ward Street sewer, no difficulty has been experienced.

As the Motor Waggon has now been at work for exactly 18 months, it may be of interest to give a few details of the work done and cost incurred since it was purchased.

EXPENDITURE.						£	s.	d.
Depreciation $1\frac{1}{2}$ years @ 10% on £623 13s. od.	...	...	...	...	...	93	0	0
Interest on Loan. Approximate	...	...	...	...	...	33	0	0
Wages	...	...	...	...	...	261	13	3
Fuel and Oil	...	...	...	...	...	57	5	4
Insurance, proportion for $1\frac{1}{2}$ years	...	...	...	...	...	22	0	0
Repairs, &c.	...	...	...	...	...	22	0	0
TOTAL (say)						£489	0	0

WORK DONE.

Loads of Refuse	...	1,964 loads.
Loads of Sundries	...	185 „
Total		2,149 „

Estimated at $5\frac{1}{2}$ tons per load to be equal to 11,819 tons.

Total mileage	...	5,267
Estimated mileage loaded		2,633
Average miles run full per load	...	1.22
„ cost per load	...	4.55 shillings
„ „ ton	...	.82 „
„ „ ton mile	...	.68 „ or
approximately $8\frac{1}{4}$ pence.		

NOTE.—Although the Waggon loan is being paid off at the rate of 20% per annum, depreciation at 10% only is charged, as it should easily have a useful life of 10 years. The full interest paid on the loan, however, is charged.

New Streets and Buildings.—One new street has been adopted during the year, namely, Elm Street—length 220 yards.

The following new plans have been submitted to the Committee.

2	plans for 3 houses, including 4 W. C's.
11	„ of drainage of 61 houses, including 56 W. C s
7	„ of additions to houses
9	„ of alterations and additions to works
3	„ of alterations to Picture Palaces
8	„ of miscellaneous
—	
40	Total
—	

Tar Spraying.—The area treated was again increased, and the following schedule indicates in detail the work executed :—

MAIN ROADS.	AREA.			AREA.
Holyhead Road ...	25,300	|	Willenhall Road ...	7,500
Ettingshall Road ...	6,000	|	Coseley Road ...	1,600
Millfields Road ...	5,800	|		
			Total—	46,200

OTHER ROADS.	AREA.			AREA.
High Street ...	4,100	|	Brought forward	30,400
Broad Street ...	5,550	|	George Street ...	3,000
The Crescent ...	1,400	|	Wesley Street ...	250
Cambridge Street	1,200	|	Victoria Street ...	350
Arthur Street ...	500	|	Pump Street ...	300
Greencroft ...	800	|	Ward Street ...	1,900
Duke Street ...	450	|	Bow Street ...	650
Alice Street ...	650	|	Dudley Street ...	2,700
Princess Street ...	900	|	Market Street ...	3,600
Earl Street ...	450	|	Hill Street ...	1,600
Pinfold Street ...	700	|	Bank Street ...	1,000
Vine Street ...	700	|	Salop Street ...	1,750
Wood Street ...	600	|	Highfields Road ...	600
Stafford Street ...	500	|	Elm Street ...	1,700
Walsall Street ...	1,200	|	Orchard ...	300
St. Luke's Street	400	|	Cooper Street ...	100
Fraser Street ...	3,000	|	Ashley Street ...	2,800
Beckett Street ...	3,300	|	Queen Street ...	3,700
Hall Park Street	4,000	|	Holcroft Street ...	550
Carried forward	30,400	|	Total—	57,250

In addition to the above the following Tarmac footpaths and Fraser Street School Playground were sprayed :—

Millfields Road ...	3,000
Wolverhampton Road ...	1,600
Hall Park Street ...	700
Fraser Street Playground	7,000
Total—	12,300

Total Area. 1913—115,750 square yards or about 24 acres.
 „ 1912—87,900 „ „
 „ 1911—19,860 „ „

The weather did not permit quite such an early start as last year, but the bulk of the work was completed in the three weeks ending June 4th.

The Road Board Grant towards the cost of the work on Main Roads was £135.

The Surveyor adds "As to the value of this work I would repeat the opinion expressed a year ago, namely—that Tar-spraying effects monetary savings and sanitary benefits.

To express the former in £ s. d. is well nigh impossible, but I am nevertheless confident that they exist, and that they are more marked in lightly than heavily trafficked streets.

As to the latter, I do not think that anybody will dispute that tar-spraying tends to the cleanliness of roads, and if this is admitted, sanitary benefits must result.

I would not suggest that any direct savings which can be effected in watering and scavenging will balance the cost of spraying, which is about £50 a mile (for an ordinary street 24 feet between kerbs). Such savings are probably less than half this amount and the balance must be set off against *improvements*, such as reduction of dust, smoother and better surfaces and sanitation.

The public demand in the matter of roadways to-day is very different to that of 20, 15, or even 10 years ago, and improvements have to be made, cost what they may, and in my opinion when finance prohibits a tar or bituminous bound road, tar-spraying is the next best thing, and particularly so on streets carrying a light traffic.

Meteorology.—The dry year of 1911 and exceptionally wet year of 1912 was followed in 1913 by a fall only some $2\frac{1}{2}$ inches in excess of the average.

From the statement below it will be seen that the monthly fall was only in excess of the average for January, March, April and October.

There was one absolute drought July 22nd to August 7th (17 days), and one partial drought July 7th to August 7th (32 days).

The monthly records from the Lunt Gauge are as follows.

Month.	Total Rainfall for the month in inches.		No. of days on which rain fell.		Greatest fall in 1 day.
	1913.	Av'ge for 11 years.	1913.	Av'ge for 12 years.	
January	4.00	1.99	18	15	.93
February . . . . .	.89	1.58	11	15	.34
March	5.19	2.49	20	17	.98
April	3.80	1.78	18	13	.75
May	1.98	2.17	14	15	.65
June	1.51	2.37	11	13	.44
July	1.45	1.76	9	11	1.12
August	1.44	3.51	12	16	.61
September	1.32	1.66	14	11	.42
October	4.84	3.25	15	18	1.75
November	2.10	2.23	18	15	.51
December	1.22	2.58	11	17	.44
Total	29.74	27.37	171	176	

Smoke Abatement.—In last year's report it was pointed out that smoke is the worst possible form of dirt owing to its nature and composition, and that it quickly corrodes rails, limestone and sandstone, &c. Various industrial concerns contribute greatly to this pollution of the atmosphere, but the worst offender is the ordinary household grate. A recent invention, based on the utilisation of well-known natural laws affecting combustion, claims to have solved the problem. To secure perfect combustion two factors are essential—there must be an intimate mixture and contact of the particles composing the combustible and the air (instead of mere access of a large supply of the latter); and further, the most suitable temperature for the chemical combinations involved during the whole period of combustion must be maintained—only under these conditions can the absence of smoke be secured. In the invention here referred to the fire-place is formed by hollow bars with double air inlets connected to a hot air chamber. The sides and back are hollow castings, also connected to the hot air chamber. Air admitted from the front becomes highly heated in its passage to the top, where it is deflected by suitable fittings to the point of combustion, then to the combustion chamber, where, meeting the hot-air issuing from the hot-air chamber, all the gaseous products become ignited. The bars have openings at the top, and the heated air which issues from them assists the lower portion of the fire, thus contributing to thorough combustion. It is claimed that the foregoing can, by means of an inexpensive alteration, be adopted to the majority of existing stoves, and that it not only effects distinct economy in fuel, but that there is a great increase in the amount of heat produced, and the production of smoke and soot is effectively prevented.

Sanitary Inspection of District —The report of the Inspector of Nuisances, which is attached to this report, gives a classified statement of the premises visited, the defects or nuisances discovered, and the action, and result of action, taken in regard to them.

In that report too, will be found particulars of the premises and occupations which can be controlled by Bye-Laws or Regulations, viz.: Dairies, Milkshops, Cowsheds, Slaughter-houses, Common Lodging-houses, and the Market, including their number and character.

New Bye-Laws dealing with Offensive Trades have been formulated and the Council has recently authorised the Clerk to issue the necessary advertisements and apply to the Local Government Board for their confirmation.

Schools and Medical Inspection.—The Medical Inspection of children in the elementary schools has been carried out by me as School Medical Officer. It is gratifying to report that, as the result of a recent visit by one of the Medical Inspectors of the

Board of Education, the highest available grant has been awarded—equal to 40% of the total expenditure—for the work done in this direction during the past year. This work is dealt with in a separate report.

The futility of the medical inspection without treatment has been generally recognised and now that the Board of Education is offering considerable financial assistance the Education Committee have decided that the time has come to undertake this work, and have within the last few days submitted a comprehensive scheme to the Board for approval.

Notices are sent from the Health Office to the head teachers in all cases of infectious disease occurring in children of school age, or where school children reside in an infected house.

Food.—The following is a summary of the work of the County Inspector under the Sale of Food and Drugs Acts, in Bilston during the year 1913.

Article.	No. of article taken.	Genuine.	Adulterated.
Milk	43	42	1
Butter	16	16	
Lard	1	1	
Pepper	2	2	
Flour	1	1	

In the case of the adulterated sample of milk a fine of £1 and 10/6 costs was imposed.

Milk.—The need of a supply of clean pure milk is vital and few people realize the enormous extent of the trade in milk. Over £120,000,000 is spent annually in milk in this country—an amount representing nearly one-sixth of the nation's debt. Milk, unprotected, is a commodity which is easily contaminated, and therefore productive of disease, while it is the essential nutriment for infants and must be supplied in all cases where for various reasons, the mother's supply fails. Its influence in the development of consumption is well known and every effort should be made to eliminate all sources of danger.

The question of sterilization of milk has recently received much attention and various views have been put forward. Some have stated that no sterilization can possibly kill the bacillus tuberculosis when it has once got into the milk. Sterilization of course means heating the milk to so high a temperature that every microbe is killed and this is about 200 deg. Fahrenheit, just before the milk begins to boil. Milk, so sterilized, will not hurt older children who can get other food but for infants who are fed entirely upon sterilized milk the result is different. According to a recent theory it is believed that in addition to the ordinary constituents, proteids, carbohydrates, and the fats, milk contains other things that make

it good or bad, especially one that has been named "vitamine." This life-giving vitamine is destroyed by too much heat and therefore it is, according to this theory, that young infants who are fed only on sterilized milk, and have no other foods also rich in vitamine, are prone to all kinds of disease, especially the insidious microbe of consumption.

This is believed to be well illustrated in certain samples of condensed milk. Huge volumes of milk are said to be mixed with sugar, evaporated in vacuum pans, and sealed up in tins, within an hour or two of milking the cows, but the temperatures are so carefully regulated that the milk never reaches sterilizing point and so never loses its essential vitamine (or vitalizing) properties and is therefore a food quite suitable for infants.

In some factories where milk is condensed in huge quantities for the Army and Navy in the unsweetened form, it is thoroughly sterilized before it has its water removed in the vacuum pans and then, without any addition of sugar, it is sealed in tins and sent all over the world. This is the grown man's luxury, who mixes it with other foods from which he gets the vitamine. The infant would starve on this while he would thrive on the sweetened unsterilized kind, according to the theory here referred to.

Sanitary Administration of the District.--The staff of the Health Department, in addition to the Medical Officers of Health, consists of the Inspector of Nuisances (who holds the certificate of a Meat Inspector as well as a Sanitary Inspector), a clerk and a Health Visitor.

The scavenging is now transferred to the Surveyor's Department and this officer is responsible for the regular and thorough removal of house refuse from ash-pits, bins, etc.

The Sanitary Inspector is also the Housing Inspector under the Housing (Inspection of District) Regulations and the Inspector of Canal Boats. His duties, in addition, include the carrying out of work for the abatement of nuisances in the District; the investigation of complaints, the inspection of Dairies, Cowsheds, Milkshops, Slaughter-houses, Workshops, Workplaces; enquiring into cases of Infectious Disease notified, removal of patients to the Isolation Hospital, and the inspection of the food supply, particularly the supply and sale of meat in the Market.

The Health Visitor is also engaged as School Nurse under me as School Medical Officer. Her duties include visits (under the Notification of Births Act, 1907), to advise mothers and, as School Nurse, to assist in medical inspection; to visit the houses of children who have been excluded; to visit schools for the inspection of dirty or verminous children and the "following up" of all cases where defects are found at the medical inspection.

Housing.—Number of houses inspected, 290. 24 of these were back to back houses and 113 were without through ventilation.

43 of the houses were void and dilapidated.

The number of rooms in the houses inspected were as follows :

1 room up and 1 down	...	56
2 rooms up and 1 down	...	99
2 " " 2 " "	...	76
3 " " 2 " "	...	18

36 of the houses were overcrowded, a large number of the other houses were also overcrowded but to a less extent, 33 notices were served on tenants to discontinue the overcrowding, and at the end of 1913, 17 of these houses were still in an overcrowded state owing to the tenants not being able to obtain suitable houses. In some cases tenants have left houses on receipt of notice and gone to houses occupied by other people, thus adding to the evil. These cannot be followed up owing to the shortage of houses at a rental within their limited means.

26 closing orders were served during the year, and demolition orders will in due course be served in each case. 3 houses were demolished.

Congested Areas.—Practically none : Smith St. and Pipes Meadow were formerly but these have been dealt with. Some old properties are now being demolished.

Chief defects are lack of spouting, causing houses to be damp. Windows not made to open, i.e., fixed frames. Preliminary notices sent in all cases.

With comparatively few exceptions, as in certain courts and yards, the dwellings have fairly open surroundings.

The following Tables give particulars of the housing accommodation and also the nature of the tenements occupied, in each Ward.

WARD.	Inhabited Houses.	Uninhab'd Houses.	Being built.	Hotels, Inns and Public Houses.	Places of Worship	Offices, Warehouses, Workshops and Factories.
Bradley ..	792	45		26	4	24
Ettingshall	924	62	2	17	3	18
High Town	901	42		38	4	15
New Town ..	1,154	63		29	5	20
Town Hall ..	1,027	61	1	25	5	44
Totals ..	4,798	273	3	135	21	121

Table showing Tenements in the occupation of Private Families in each Ward.

Number of Rooms.	Bradley Ward. ⁴	Ettingshall Ward.	High Town Ward.	New Town Ward.	Town Hall Ward.
1		1	1	4	1
2	76	69	105	107	87
3	281	181	218	397	157
4	294	379	296	412	339
5	116	221	243	244	229
6 & over.	91	146	162	125	331

In connection with this subject of the housing of the people in tenements some most interesting and significant statistics have been prepared from details of the census of 1911, and published in book form.

This book classifies the people of England and Wales by the sizes of families and by the number of the rooms occupied by the families. The family is treated as the number of people shown on a census schedule, and includes boarders, visitors, servants, etc.

The number of private families in England and Wales is 7,943,137, representing a population of 34,606,173. The first table shows that no fewer than 3,207 in every 100,000 families live in tenements of one room, these including one family of nine persons, two of eight, eight of seven, 26 of six, 78 of five, 196 of four, and 416 of three. Taking the families in sizes, ranging from one person up to 15 and upwards, the table shows that in every 100,000 families 5,328 consist of one person, 16,161 of two, 19,282 of three, 18,122 of four, 14,424 of five, 10,364 of six, 6,939 of seven, and so on, until there appear to be 51 families of 15 persons and upwards in each 100,000. Some 73 per cent of the tenements have from three to six rooms, and the commonest size are four roomed tenements, which form nearly 25 per cent of the whole. Nearly 60 per cent of the tenements consist of from three to six rooms, and are occupied by families of from two to six persons.

As to the size of families, 19 per cent consist of three persons, 18 per cent of four, 16 per cent of two, 14 per cent of five, 10 per cent of six, and no less than 78 per cent consist of from two to six persons. The four-person family contains the highest proportion of the population, 16.64 per cent, five-person families being 16.55

per cent, and 72 per cent of the people are members of families of from three to seven, living in three to six roomed tenements.

There are nearly half a million people living in one roomed tenements, and the astonishing fact is revealed that in this total are three families of 12 persons each, two of 11, and twelve of ten. As families of five there are 31,085 persons living in one-roomed tenements, ; four, 62,360 ; and three, 99,120. In spite of the acknowledged improvement in housing conditions, tenements of three rooms having more than two occupants per room appear to have increased both numerically and proportionately, while those of four rooms have increased absolutely but not proportionately. The population in tenements of fewer than five rooms declined from 45.1 in 1891 to 39.9 in 1901, but rose to 43.1 in 1911. In tenements of fewer than five rooms there are on the average a smaller number of persons than in 1891 or 1901, which was indicative of the general rise in the standard of comfort.

The family of three persons is more numerous than any other, being followed by families of four and then two. The proportion of families of one to three persons are higher in the rural than in the urban districts, as are those of 12 or more to a family. It is a remarkable fact that, in spite of the large numbers of lodgers in the large urban centres, there should be more people in proportion living alone in rural than in urban districts. Of the whole number of persons lying alone, 38.1 per cent were males and 61.9 females.

Of the counties having the highest and lowest proportions of families, Cardigan, Anglesey, and Cambridge head the list of families of less than four, with Staffordshire, Northumberland and Derbyshire, at the bottom ; Glamorganshire, Staffordshire, and Durham head the list of the four to six families, with Anglesey, Oxford, and Hereford at the bottom ; and Glamorganshire, Monmouthshire, and Durham are at the top of the more than six families, with Cambridgeshire, Cornwall, and Merionetshire as the lowest.

Although, taking the counties as a whole, housing conditions would appear to be better in the rural and agricultural counties than in the mining and industrial, it is a somewhat significant fact that in the agricultural counties it is the rural portions which contribute most to overcrowding, while the reverse is usually the case in the industrial counties.

These figures may be further supplemented by giving, in tabular form, a return just presented to Parliament by the President of the Local Government Board, who stated that "the census figures of 1911 showed the numbers of separate families and the population overcrowded, on the basis of more than two persons to a room, as follows :—

Rooms in Tenement.	Number of Families.	Population.
1	57,835	211,770
2	135,092	804,071
3	130,272	1,023,925
4	81,811	792,716
5	22,484	260,246
6	3,097	41,770
7	294	4,503
8	16	288
9	9	183
Total 1—9 rooms	430,910	3,139,472

The question of closing houses in this district is a very serious one, requiring the most careful consideration. The wages of the poorer class do not allow them to pay rents sufficient to procure houses large enough for their families and in many cases they have no choice but to reside in some that are hardly fit for habitation. Not unfrequently, too, their habits and mode of life would soon reduce the best of dwellings, if they were fortunate enough to secure them, to a dirty and dilapidated condition. These difficulties are increased by the high price of building materials and the almost intolerable burden of local taxation. To close many of the existing houses, however unsuitable they may be, or to bring about hasty and extensive demolition of insanitary properties, would aggravate the evil by raising the rents of the cheaper houses that remained and would cause still further overcrowding. One of the most urgent social problems is the provision of cheap sanitary dwellings in more open spaces, at rents within the reach of the poorer portion of the community, who, in their turn, should be made to keep the houses (and themselves) in a clean and healthy state.

Infectious Diseases Hospital — At the end of the year 1912 16 patients remained in the Hospital, and 26 (10 males and 16 females) were admitted during the year, 12 of those were under 5 years of age. The youngest patient admitted was 3 years, and the oldest 14 years. 34 were discharged cured and 2 died, leaving 6 in on the last day of the year. The average period of detention was 53 days.

Since the present hospital was opened on July 7th, 1906, 506 patients have been admitted, an average of 68 per annum, and only 16—or 3·2 per cent.—died.

The hospital consists of two wards, is available for one disease only (Scarlet Fever), and is under my control as Medical Superintendent.

The necessary extensions of the hospital, particularly in the provision of an observation ward and discharging block, are under the consideration of the committee.

The disinfecter continues to be of great service, and has been in use on 48 different occasions during the year, when 192 articles (including 8 beds) have been disinfected.

Adoptive Acts.—The following Adoptive Acts and Regulations are in force in this district.

Infectious Diseases (Notification) Act, 1889.

Infectious Diseases (Prevention) Act, 1890.

Housing of the Working Classes Act, 1890.

Public Health Acts Amendment Act, 1890 (parts

Dairies, Cowsheds and Milkshops' Order (Regulations established under the order March, 1889).

Supply of Diphtheria Antitoxin Serum (Local Government Board Order, 1910) for curative and prophylactic purposes.

Extension of the Provisions of the Infectious Diseases (Notification) Act, 1889, to include Poliomyelitis and Cerebro-Spinal Fever.

The Notification of Births Act, 1907.

The Notification of Ophthalmia Neonatorum (this is now made compulsory throughout the country on and after April 1st, 1914.

Offensive Trades—New Bye-laws.

Bacteriological Examinations.—The Staffordshire County Council have continued the arrangement with the authorities of the Birmingham University for a free Bacteriological examination of the secretions in suspected cases of Diphtheria, Enteric Fever and Tuberculosis.

This privilege has been taken advantage of in 30 different cases, viz :—

16 of suspected Diphtheria (with negative results in 14 cases).

14 of Tuberculosis.

Prevalence of, and control over, Acute Infectious Diseases.

Infectious Diseases (Notification Act, 1889).—During the year 65 certificates were received under this Act, including 11 of Ophthalmia Neonatorum, as compared with 121 in the previous year, 104 in the year 1911, 84 in 1910, and 117 in 1909.

They included 28 of Scarlet Fever, 10 of Diphtheria and Membranous Croup, 2 of Enteric Fever, and 14 of Erysipelas.

There were in addition 112 notifications of Tuberculosis referring to 100 cases.

The following table shows the number of notifications of each disease received in each month of the year, and also the totals for this and the previous 10 years.

			Ophthalmia Neonatorum.	Scarlet Fever	Enteric Fever	Puerperal Fever	Diphtheria and Mem- branous Croup	Erysipelas	Smallpox	Total
January	...	...		5			2	1		8
February	...	...		2				2		4
March	...	...	2		1			3		6
April	...	...		5	1		1			7
May	...	...	2				1	2		5
June	...	...	3	1			1	2		7
July	...	...					1			1
August	...	...	2	1						3
September	...	...	1	4			1			6
October	...	...		1			1	1		3
November	...	...	1	7				1		9
December	...	...		2			2	2		6
1913	...	...	11	28	2		10	14		65
1912	...	...	8	83	4	3	8	15		121
1911	...	...	3	57	1	3	16	24		104
1900	...	...		48	10	2	7	17		84
1909	...	...		74	7	1	13	22		117
1908	...	...		108	10		18	15		151
1907	...	...		180	10	4	16	16		226
1906	...	...		107	15	3	10	22		157
1905	...	...		50	12		5	30		97
1904	...	...		156	4	1	5	37	2	205
1903	...	...		244	11	7	13	41		316

Notifications received for each Ward in each Month of the Year.

	NEW TOWN WARD.	HIGH TOWN WARD.	TOWN HALL WARD.	BRADLEY WARD.	ETTINGSALL WARD.	TOTAL
January	...	5	2	1		8
February	...		2	1	1	4
March	1	2	1	1	1	6
April	3			2	2	7
May	2	1		1	1	5
June	1	2		1	3	7
July	1					1
August	...	3				3
September	...	4	1		1	6
October	...	1	1		1	3
November	...	4	3		2	9
December	...	1	2		3	6
	8	23	12	7	15	65

The following is the administrative method adopted in dealing with cases of infectious diseases. All cases are visited as soon as possible after the receipt of notification—practically always on the same day if the notification arrives by early post—and enquiries made as to the probable source of infection. The sanitary condition of the dwelling and surroundings are noted and disinfectants supplied where necessary. The patient is promptly removed to the hospital if this is required, and if not, instructions are given regarding isolation, &c. “Exclusion Notices” are forwarded to the head teacher where school children reside in the house, and the latter is disinfected on the termination of the case.

Enteric Fever.—Two cases of Enteric or Typhoid Fever were notified during the year, as compared with four in the previous year, 7 in the year 1911, 1 in 1910, and 10 in each of the years 1909, 1908 and 1907. Both these cases occurred in Ettingshall Ward; one case was removed to the Wolverhampton General Hospital. The other case was too ill to move at the time of notification. This case was fatal and was undoubtedly due to the eating of shell fish.

Scarlet Fever.—Twenty-eight cases in twenty-four houses were notified during the year, compared with 83 cases in the previous year, 57 in the year 1911, 49 in 1910, 74 in 1909, 108 in 1908 and 160 in 1907. Two of the cases proved fatal, 24 cases were removed to the hospital and the remaining four isolated at home.

Measles—Thirty-eight deaths were registered during the year, 7 being under one year of age, 25 under 5 years of age, and the remaining 6 between five and fifteen years of age; as compared with 30 deaths during the previous year.

Eight of these deaths occurred in the month of February, 10 in March, 9 in April, 8 in May and 3 in June. At the end of February I deemed it advisable to close the St. Edward's Junior mixed and Infant's School for three weeks.

It is generally believed that Measles is infectious chiefly by direct contact with the patient and not to any extent by clothes, and its administrative control is very difficult. While general notification cannot be justified it is probable that the notification of the *first* case in the household would be helpful. Reduction in the death rate from this disease is no doubt due to the general improvement in hygiene and in the greater care of the sick, though, notwithstanding this reduction, no less than 12,696 deaths were caused by it, in 1912, in England and Wales.

Whooping Cough.—There were no deaths during the year as compared with 19 in the previous year.

Diphtheria and Membraneous Croup.—Ten notifications of Diphtheria and Membraneous Croup were received during the year, as compared with 7 in the previous year, 16 in the year 1911, 7 in the year 1910, 13 in the year 1909 and 18 in 1908. One of these, a child aged one year, proved fatal.

Diarrhoea.—There were 42 deaths from Diarrhoea and allied conditions during the year, 20 being in children under one year, 11 between 1 and 2 years, 6 in children between 2 and 5, and 6 over 5 years, as compared with 14 in the previous year, 61 in 1911, 25 in 1910, 24 in 1909, 29 in 1908 and 28 in 1907. This is equal to a rate of 1·6 per 1000 of population.

The following table shows the number of these deaths in each month of the past five years, distinguishing those of infants under 1 year, of children between 1 and 5 years, and those above 5 years.

	1909.				1910.				1911.				1912.				1913.			
	Under 1 year.	1 and under 5.	5 and upwards.	Total.	Under 1 year.	1 and under 5.	5 and upwards.	Total.	Under 1 year.	1 and under 5.	5 and upwards.	Total.	Under 1 year.	1 and under 5.	5 and upwards.	Total.	Under 1 year.	1 and under 5.	5 and upwards.	Total.
January ...	1			1									1	1		2	1	1	1	3
February ...										1		1	1	1		3				
March ...									1			1	1			1				
April ...																	1			1
May ...					1	1		2					1			1				
June ...	1			1	4			4	2	1	1	4	1			1	1	1		2
July ...	3			3		1		1	1	1	1	3					3			3
August ...	2	4		6	2	2	1	5	15	9	3	27	1	1		2	7	5	1	13
September ...	2	2		4	3	1		4	12	7	1	20	2	1		3	3	6	2	11
October ...	2	2		4	2	5		7	2		1	3	1			1	4	1	1	6
November ...	4	1		5	2			2										1	1	2
December ...										1	1	2			1	1				1
	15	9		24	14	10	1	25	33	20	8	61	7	4	3	14	20	16	6	42
Rate pr 1000				·95				·99				2·4				·506				1·6

The removal of house and vegetable refuse received special attention and disinfectants were freely supplied.

Erysipelas.—14 cases of Erysipelas were notified during the year as compared with 15 in the previous year, 24 in 1911, 17 in 1910, 15 in 1909 and 16 in 1907.

Puerperal Fever.—There were no cases notified during the year.

Acute Poliomyelitis and Cerebro Spinal Fever.—There were no cases notified during the year.

Ophthalmia Neonatorum.—There were 11 cases notified during the year, 9 of which were visited constantly, until cured, by the Health Visitor. The others were under the care of a Medical Practitioner.

Zymotic Diseases.—Eighty-four deaths, 28 being in infants under 1 year, 43 in children above 1 and under 5, and 13 over 5 years of age were attributed to the seven principal Zymotic diseases, giving a death rate of 3.2 per 1,000, as compared with 67 deaths in the previous year, 119 in 1911, 32 in 1910, and 91 in 1909

The subjoined table shows the number of deaths from each of these causes for the past year, and previous 10 years, and gives the rate per 1,000 of the population.

Deaths from	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913
Scarlet Fever ...	8	11		1	8	3	5	2	5	2	2
Small Pox ...											
Measles ...	6	14	1	18	27	5	46	2	49	30	38
Whooping Cough ...	7	10	2	23	7	17	14	2	2	19	
Enteric Fever ...	3		3	5	1	3		1	1	1	1
Diphtheria and Membranous Croup }	6	1	1	3	3	3	2		1	1	1
Diarrhœa ...	41	59	41	41	28	29	24	25	61	14	42
Totals ...	71	95	48	91	74	60	91	32	119	67	84
Rate per thousand...	2.7	3.9	1.9	3.7	3.02	2.4	3.6	1.2	4.1	2.6	3.2

It should be noticed that Measles and Diarrhœa account for no less than 80 out of the 84 cases.

Prevalence of, and Control over Tuberculosis.—During the year 112 notifications relating to 100 cases of Tuberculosis were received. 75 of these were Pulmonary Tuberculosis and 25 of other forms of Tuberculosis. 55 were males and 45 females. 81 cases existed at the end of the year, the remaining 19 having died or left the district.

The following table shows the age, sex, and parts of the body affected, and also the Wards in which the cases were notified.

Localisation of Disease.	Under 1 year.		1 & under 2 years.		2 & under 5 years.		5 & under 15 years		15 & under 25 years.		25 & under 45 years.		45 & under 65 years.		65 years & upwards.		Bradley Ward.		Ettingshall Ward.		High Town Ward.		New Town Ward.		Town Hall Ward.		TOTAL.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Lungs ...					1		7	7	8	5	16	17	9	4	1		10	6	6	8	13	5	5	5	8	9	42	33
Glands ...		2			2	3	2	2	1	3							3	3	1	2		2		1	1	2	5	10
Bones & Joints					1		2	2			1		1				1		1		1	1		2	1	5	2	
Abdominal ...					2		1										2					1				3		
Totals ...		2			6	3	12	11	9	8	17	17	10	4	1		16	9	8	10	13	8	7	6	11	12	55	45

When a notification is received, the patient is visited and enquiries made as to the probable cause. Advice is given with regard to personal habits, the need of fresh air and the open window day and night, and other preventive measures, cards of instructions are left and disinfectants supplied. After removal or death the house is fumigated and the bedding, &c, disinfected.

Tuberculosis has been fully discussed in previous reports, and it is not necessary to enter into further details here. The domiciliary treatment of this disease—treatment at home—is, in a district like this, practically useless, and is most dangerous to the other inmates of the dwelling. A Conjoint Board has been formed for this County and some of the County Boroughs, and it is most essential that they should proceed more rapidly in providing proper Sanatorium accommodation to which cases can be promptly removed, and where they can remain as long as required, whatever that period of time may be. I hold strongly the view that these cases should be kept at the Sanatorium until the cure is absolutely complete, where cure is possible. Those unfortunate cases where the disease continues to progress should be removed to homes for the dying, so that they may have every comfort, and at the same time be prevented from spreading infection, as they would be likely to do if removed to their own homes.

I do not overlook the fact that the Hospital belonging to the Conjoint Small Pox Board, which is situated in the Bilston area, has been taken over and is now in use for the treatment—chiefly for educative purposes—of tuberculous insured persons, but this is not the most suitable site for the purpose, and, further, is quite inadequate.

It cannot be too frequently said that the tubercle bacillus cannot thrive if fresh air is continually being breathed, and sunlight allowed to penetrate into every corner of sleeping and living rooms—hence the vital need of the open window and the open chimney, and outdoor shelters where cases must be treated at home.

Perhaps the best method of ventilation for ordinary dwellings is an outlet into the chimney flue (the chimney being always kept open) at ceiling level, (but one which will not let in smoke), and this can be obtained for a few shillings. Through this the heated air will rush out automatically both day and night, particularly when aided by the draughts induced in the flue, and its place will be readily supplied by air drawn in through the chinks in doors and windows, without the necessity for special “air-inlets”—these are usually closed because they concentrate a draught.

Consumption is cured, arrested or improved by living and sleeping in the open air, sunlight and fresh air being food for the lungs; by feeding well—plenty of good nourishing food, especially fatty food being essential; by clothing warmly, and by graduated

outdoor work so as to restore bodily vigour, and steadily to improve the circulation, throughout the system, of pure healthy blood.

The following directions to consumptive patients are most important, and should be scrupulously carried out.

In coughing, do not cough into another person's face, and be careful to hold before your mouth a paper-square, a piece of rag, or a handkerchief, which can be burnt, disinfected, or boiled in the morning or evening, together with the separate satchel or pocket in which these articles are carried.

The phlegm or spit must not be swallowed, for two reasons — firstly, because it may set up the disease in the bowels; and secondly, because, whether it sets up disease or not, it will infect the stools, and render it necessary to take special precautions to disinfect them also.

In spitting, do not spit upon the floor, side, wall, or other surface of the interior of any room, hall, conveyance, or other enclosed or covered place; but spit when indoors into a bowl, and when out of doors into a wide-mouthed bottle or pocket spittoon. The bowl or bottle must contain some liquid disinfectant, and be properly covered or corked.

The paper, rag or handkerchief, and the satchel or pocket mentioned above to be used in coughing may also be used for wiping the mouth, and, if the bowl or bottle is not at hand at the moment, also for receiving the phlegm, provided that it is not allowed to get dry, and that as soon as possible it is burnt or plunged into strong disinfectant solution or boiled.

The contents of the bowl or bottle should twice daily either be cast into a bright fire or down a water-closet, or be buried in the earth. The bowl, with the cover off, or the bottle with the cork out, should then be boiled in water for five or ten minutes and thoroughly cleansed, and the cover or cork should be similarly treated at the same time.

In kissing, a consumptive should not kiss or be kissed on the lips, and it is safer for all persons, whether consumptive or not, if they kiss and be kissed on the cheek.

In eating, table articles, such as knives, forks, spoons, drinking vessels, and table napkins, after use by a consumptive, should be carefully washed in boiling water, and it is safest to reserve a set of such articles for his special use.

In sleeping, a consumptive should not sleep with another person, but should occupy a separate bed, and best of all should have a separate bedroom, where open-air treatment can be carried on, the windows being open day and night, with advantage to himself and his family.

In washing, a consumptive should have a separate towel for his special use, in the same manner as he should have a separate table-napkin and a separate handkerchief.

In working, a consumptive should graduate his bodily work according to his condition, and carry it on either in the open air or in a room open to the air as much as possible.

Vital Statistics of the District.

Births.—886 births, 462 males and 424 females, were registered during the year, giving a birth rate of 33·97 per 1,000 of the population, and being an increase of 87 on the previous year.

The following gives the number of births, male and female, for this and the previous two years.

	—1913.—			—1912.—			—1911.—		
	Males.	F'ales.	Total.	Males.	F'ales.	Total.	Males.	F'ales.	Total.
First Quarter	113	115	228	116	92	208	111	118	229
Second „	125	103	228	107	100	207	99	113	212
Third „	119	119	238	89	109	198	110	76	186
Fourth „	105	87	192	95	91	186	97	101	198
	462	424	886	407	392	799	417	408	825

Table showing the number of Births and Birth Rates for the years 1903—1912.

Year.	Males.	Females	Total	Average per 1000 of Population.
1903	444	451	895	36·9
1904	465	434	899	37·07
1905	456	481	937	36·5
1906	446	433	879	38·1
1907	453	481	934	35·2
1908	446	436	882	32·7
1909	418	408	826	32·1
1910	423	407	830	32·5
1911	417	408	825	31·1
1912	407	392	799	31·4
Yearly Average 1903-12	437	433	870	33·3
1913	462	424	886	33·97

For the purpose of comparison, the birth-rate of the whole country and of Staffordshire Urban and Rural Districts, for the same years, 1903—1912 are added, together with the corresponding rates for England and Wales, and of the large towns in England.

Districts.		1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
Staffs.	Combined Urban & Rural	32.5	32.5	31.0	30.9	29.7	30.3	28.3	27.7	27.7	27.2
	Urban	33.4	33.7	32.0	31.9	30.9	31.4	29.0	28.7	29.3	29.0
	Rural	30.1	28.4	27.1	27.2	25.7	26.7	26.2	25.1	24.2	23.2
England & Wales		28.4	27.9	27.2	27.0	26.3	26.5	25.0	24.8	24.4	23.8
Large Towns in England ..		29.7	29.1	28.2	27.9	27.0	26.9	25.7	25.0	25.6	24.9
Bilston		36.9	37.07	36.8	38.1	35.2	32.7	32.1	32.5	31.1	31.4

Deaths.—During the year 438 deaths were registered from all causes (226 males and 212 females), giving a death-rate of 16.78. In addition 73 deaths of residents occurred in the General Hospital and Workhouse, and 3 persons died here who belonged to other districts (to which these deaths have been transferred), thus rising the net deaths belonging to the district to 508 and the rate to 19.48 per thousand, as compared with 17.6 last year.

For the purposes of comparison, the death-rate of the whole county, and of Staffordshire Urban and Rural Districts, for the past 10 years, are given, together with the corresponding rates for England and Wales, and for the large towns in England.

District.		1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
Staffs.	General	15.3	16.4	15.4	15.2	14.7	14.6	15.3	12.6	15.0	13.9
	Urban	15.8	17.2	15.9	15.8	15.2	15.0	15.8	12.8	16.1	14.4
	Rural	13.5	14.4	13.5	13.0	12.9	13.1	13.5	12.4	12.5	12.8
England and Wales		15.4	16.2	15.2	15.4	15.0	14.7	14.5	13.4	14.6	13.3
Large towns in England ..		16.3	27.1	15.7	15.9	15.4	14.9	14.7	13.4	15.5	13.8
Bilston		17.6	18.9	20	18.5	16.3	16.9	15.7	15.9	15.6	17.6

Table of Deaths classified according to disease, distinguishing deaths of children under 5 years of age, for the past 10 years.

YEARS.	AGE.	Enteric or Typhoid Fever.	Smallpox.	Measles.	Scarlat Fever.	Diphtheria and Croup.	Whooping Cough.	Influenza.	Erysipelas.	Phthisis.	Tubercular Meningitis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Other Diseases of Respiratory Organs.	Diarrhoea and Enteritis.	Appendicitis.	Diseases of Alimentary Organs.	Heart Disease.	Puerperal Fever.	Congenital Debility.	Inquests.	All Other Diseases.	Totals at Ages Stated.	Total at all Ages.	Death-rate per thousand.	
1904	Under 5	14	11	1	10	2	1	7	17	4					58	23			29			7	118	262	460	18.9	
	5 upwds.					5									42	6						15	84	198			
1905	Under 5	1													54	7			30	1		4	113	217	429	17.5	
	5 upwds.	3				2		16							53	2			3	21		19	93	212			
1906	Under 5	15	1		3	23		7							58	21			16	1		6	112	263	490	20.0	
	5 upwds.	3				6	1	28							45	2			2	17		20	98	227			
1907	Under 5	26	2	1	6	1	7								45	26						5	111	230	455	18.5	
	5 upwds.	1	6	2	1	4	1	18							44	2				21	2	17	106	225			
1908	Under 5	5	2	3	15		1	4							56	29				1			103	219	408	16.3	
	5 upwds.	2	1			4	12								66					10		94	187				
1909	Under 5	46	4	3	13	1	2	1							43	24						6	67	210	427	16.9	
	5 upwds.		1		1	6	15								47				20			14	113	217			
1910	Under 5	2	2		2		2								16	24				1			5	83	137	332	13.1
	5 upwds.	1				5	13								47	1			18			15	89	195			
1911	Under 5	43	4		2	1	9								27	53				1			48	188	410	15.9	
	5 upwds.	6	1			8	1	21							44	8			7			9	117	222			
1912	Under 5	27	2		16	2	1								62	1				1		11	61	194	403	15.3	
	5 upwds.	1	3		3	8	1	19							44	3				1		17	98	209			
1913	Under 5	32	2	1	1		5								35	29	1	36	1		38	1	37	223	438	16.78	
	5 upwds.	1	6			5	16	1							3	2					8	114	215				

It will be noticed that the chief causes of the increased mortality are Measles, Enteritis or Diarrhœa, and Diseases of the Respiratory Organs. There were no deaths uncertified during the year.

Infantile Mortality.—137 infants died in the first year of life, as compared with 118 in the previous year, 109 in the year 1911, 98 in 1910, 118 in 1909, and 148 in 1908. This gives a death rate of 154·6 per thousand registered births.

Reference to Table IV will show that of these 137 infants no less than 49 died in the first month of existence, and 23 in the first week; 15 died from premature birth and 12 from debility or wasting disease. 18 of the births in the year were illegitimate.

The influences that produce, or tend to produce, a high infantile mortality have been exhaustively dealt with on previous occasions. They mainly centre in two factors—the nature of the food the infant receives, and the income of the parent. It is well known that the chances of an infant fed on the milk of the mother alone surviving the first year of life are infinitely greater, probably three times as great, than the chances of the infant who cannot be so fed. With this is associated the appalling ignorance of the average mother as to how to feed and manage her child. The income of the parent is an economic question of far-reaching importance, and one that is concerned largely, not only in the causation of actual mortality, but also, to a very large degree, in the deterioration of physique and the “stoppage of growth” that is so frequently observed in children of the very poor. Factory labour among mothers is regarded as an evil, but as a matter of fact, while it leads to artificial feeding of infants, and is therefore bad, it also helps to an increase of income for the home, and therefore to some benefit to the child. To shut women out of factories altogether and leave the man’s wage where it is, is not an unmixed blessing for the offspring. In some places as in London, Manchester, Paris, Brussels, &c., various organisations have been formed to assist poor mothers in this connection. In Paris a “Nursing Mothers’ Restaurant” has been established, the only ticket of admission to which is the carrying of a child. To spend thousands a year on Hospitals, Sanatorias, and the like, and to neglect the needy nursing mothers, is a mistake too frequently made and one that will not help in race development. In this connection the Maternity Benefit, under the National Insurance Act, is proving, and will continue to prove, a priceless blessing to poorer mothers.

Where, from any abnormal cause, breast feeding is impossible, every care should be taken to give food of proper quality, in suitable quantity, and at right intervals. The following table gives the quantity suitable for a healthy child:—

Age of Child. During	Milk. Tablespoons.	Water or Barley Water. Tablespoons.	Total amount to be given at each meal. Tablespoons.
1st fortnight.. ..	1	2	3
2nd „	2	3	5
2nd month	2	3	5
3rd „	4	4	8
4th „	5	4	9
5th „	6	4	10
6th „	8	4	12
7th „	9	4	13
8th „	10	4	14
9th „	12	4	16

If the infant does not thrive on milk alone, a small quantity of fresh cream may be added to each feed.

Children may be fed with a spoon or from a bottle. The latter must be *without* any tubes, and should have the teat fitting directly upon it. The “boat” bottle marked in tablespoonfuls is very suitable. Bottles and teats *must* be washed at least once a day in *boiling* water, to which a little washing soda has been added, and again rinsed with cold water.

That abomination—the dummy teat—should not be used under any circumstances. It is usually a visible sign of the mother’s laziness or indifference.

The kind of perambulator, too, in which the child is taken out, is of importance—the hood should consist of a light ventilating canopy or of wicker. The ordinary unventilated leather pram hood is most injurious, as there is no current of air passing over the baby’s head. It is especially harmful in warm weather, when the baby’s breath stagnates around the mouth and nose so that it breathes its own breath over and over again, thus poisoning the system and predisposing to sickness and debility.

The following is the report of the Health Visitor (Miss Weller) “During the past year 850 houses were visited where births were notified (9 being cases of twins). 22 infants were still-borns, and in 49 cases there was no need for a visit. The mothers are advised as to the feeding, bathing, clothing, and general care of the child; in 778 cases the infants were breast-fed, in 32 partly breast and partly hand-fed, and in 27 entirely hand-fed. In the latter the hygienic tubeless feeding bottles are generally in use. The importance of cleanliness in the vessels for storage of milk and the means to prevent contamination are always pointed out.

894 return visits were made in following up cases, especially where premature or weakly babies were concerned, neglect suspected, or when infants were put out to nurse.

9 cases of Ophthalmia Neonatorum were visited twice daily until a satisfactory result followed, and this occurred in all cases.

The "dummy" teat was condemned on all occasions, and reasons for its not being used were given to the mothers—it still, however, is much used."

Vaccination.—The following is the return of the Vaccination officer for the year 1912, and the first half of 1913, together with the figures of the nine preceding years.

	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	Half Year to June 30 1913.
Births Registered ...	895	899	937	899	934	879	831	830	825	801	460
Successfully Vaccinated	801	816	825	784	814	703	621	570	530	467	262
Insusceptible ...	1	1		1	2	2	2	1	3		
Died Unvaccinated...	77	56	91	91	95	87	51	52	41	69	37
Postponed ...		1	4	1	3	6	6	1	1	4	2
Removed from District Certificates of Con-	4	4	1	7	4	6	8	5	2	15	8
scientious Objectors)											
Unaccounted for ...	12	11	12	15	15	74	143	200	229	239	140
			4		4	1		1	19	7	11
	895	899	937	899	934	879	831	830	825	801	416

To those who think that Small Pox is a disease of the past and can therefore be safely ignored, it may prove of interest to learn that 111 cases were notified in this country in 1912, and 265 in 1911. In the early part of last year (1913) an outbreak occurred in the district of Newhaven, where 22 cases were notified, 2 in the neighbouring district of Lewes, 1 in Rye, and 1 in Seaford. These cases—5 of which ended fatally—and these included 3 children under nine years in one household, whose parents had refused vaccination for them—originated with the visit of a seaman to a house in Newhaven who had come to England in a vessel calling at French ports.

Altogether 90 cases of Small Pox were notified in England and Wales, excluding ports, during 1913, and in addition 25 cases were notified to port Sanitary Authorities, being chiefly imported cases.

In face of these returns it is of importance to notice that the number of so-called conscientious objections to vaccination continues to increase, and actually equalled three-tenths of the infants born during the past year. In a paper read before the Society of Medical Officers of Health last November, Dr. Hanna pointed out the dangers which threaten the community at large from the fact that out of 900,000 births from 200,000 to 300,000 infants are not vaccinated. He furnished the following most significant figures :

ANALYSIS OF VACCINATION OFFICERS' RETURNS

Extracted from Annual Reports of Medical Officers to the Local Government Board, 1910-11-12.

Total Unvaccinated Children in percentages of Births in respective years.

	Period 1893-97.	1909.	1910.
England & Wales ..	21.0	32.3	36.3
ex-Metropolitan Unions ..	20.5	32.5	36.7
Metropolitan Unions ..	23.9	30.7	34.1

8 English Counties with *lowest* percentage of Unvaccinated Children.

Lancaster	21.7	26.7	29.2
Hereford ..	8.7	23.9	34.4
Huntingdon ..	6.0	32.9	36.3
Cambridge ..	9.6	42.0	47.7
Chester ..	6.7	21.9	25.3
Devon ..	9.1	21.3	25.2
Hampshire ..	9.6	23.0	28.7
Westmoreland ..	4.0	22.9	28.1

3 English Counties with *highest* percentage of Unvaccinated Children.

Bedford ..	73.6	71.2	73.7
Leicester ..	75.6	75.6	78.4
Northampton ..	62.8	64.3	67.6

Metropolitan Unions with *highest* percentage of Unvaccinated Children.

Poplar ..	31.4	53.3	57.6
Stepney ..	34.2	51.3	56.6
Bethnal Green ..	68.2	50.6	56.8
Hackney ..	61.5	39.0	43.8
Mile End ..	57.1	51.8	51.1
Shoreditch ..	43.9	42.8	47.0

LARGE TOWNS.

Total Unvaccinated Children in Percentages of Births for the following periods.

	Period 1893-97.	1909.	(Latest Returns obtainable.
Stockport ..	14.5	36.0	
Bristol ..	28.0	41.9	
Gloucester ..	59.7	60.0	
Manchester ..	3.9	22.7	
Oldham	79.1	56.1	
Blackburn	12.6	42.8	
Wigan ..	15.1	30.6	
Leicester ..	80.8	84.3	
Southampton ..	6.4	21.6	
Liverpool ..	4.1	3.7	
Hull ..	17.8	20.3	

One of the most gratifying features in public health is the steady and continuous decline in the national death rate. In the year 1912 this decline from all causes was 27 per cent. as compared with the average of the period 1891—1900. In the same way the decline, upon the same basis of comparison, in the rates of death from specific diseases was as follows :—

	Per cent.
Infant Mortality	36
Measles	16
Scarlet Fever	66
Whooping Cough	40
Diphtheria and Croup	57
Enteric Fever (or Typhoid)	75
Tuberculosis (all forms)	32
Tuberculous of the Lungs	25

The death-rate from Tuberculosis in the aggregate county boroughs was higher than in other urban districts in the aggregate, and still higher than in rural districts; the death-rate for males was highest of all in London, and for females slightly lower than in county boroughs. Excepting Cornwall, in which there was excessive consumption among miners, the six highest counties were in Wales.

Again, in the three years 1909—11, 1,529,000 deaths occurred in England and Wales. This number was 772,811 fewer than would have occurred had the average death-rate of 1871—80 held good for these three years. The largest share of this savings of life during three years occurred in the working years of life, and the gain thus secured to the economic capacity of the nation was on a gigantic scale :—

Under one year	98,000
Between one and five	126,000
„ five and fifteen	44,000
„ fifteen and twenty-five	58,000
„ twenty-five and thirty-five	78,000
„ thirty-five and forty-five	77,000
„ forty-five and fifty-five	50,000
„ fifty-five and over	114,000

Under special diseases, the saving of life in these three years, compared with the experience of three years of the decennium 1781—80, was, in respect of

Small Pox	25,463	Diarrhœa, dysentry and	
Measles	7,824	cholera	32,996
Scarlet Fever	69,974	Pulmonary tuberculosis	114,799
Whooping Cough	30,884	Other tuberculous dis-	
Typhus, enteric & simple		eases	36,338
continued fever	45,339		
Puerperal fever	3,941		
Total saving on these diseases...367,008			

Taking the 32 years—1881 to 1912—the saving of life was truly colossal. During these 32 years, in England and Wales, 17,083,751 deaths occurred. Had the relatively high death-rates of 1871—80 continued during each of these 32 years with the populations of each of these years, 3,942,000 more deaths would have occurred than were actually experienced.

This saving of life, largely due to improved conditions of living and a greater care for healthier surroundings, has been an enormous gain to the economic capacity of the nation, and its cost must be regarded as in every way a profitable investment. The economic value of health and the wastefulness and wickedness of premature sickness and decay are not even now sufficiently realised, but the steadily-increasing readiness of local authorities to expend money on sanitary measures indicate an increasing realisation of the truth that national health is national wealth.

Census of Infirmities.—For the first time in this country an attempt was made in the census of 1911 to obtain information regarding the deaf, other than deaf mutes, and other definite particulars regarding certain infirmities, and these are dealt with in a special report. From this the following figures have been extracted as of special interest. It was found that there were :—

26,336 totally blind.
26,649 totally deaf.
1,695 dumb.
13,427 deaf and dumb.
161,993 insane.

A summary of the proportion for the sexes is as follows :—

One in 1,316 males is blind.
One in 1,424 females is blind.
468 men per million are deaf and dumb.
373 women per million are deaf and dumb.
1,000 males to 1,054 women are insane.
960 females per million are deaf.
610 males per million are deaf.

The proportion of blind males exceeds that of females at every age except those over 75, the excess being greatest in the working period of life when the risk of accidents involved by the occupations of males would have most effect.

By far the greatest number of the blind were engaged as willow, cane and rush workers or as basket makers. The proportion of deaf and dumb was lower than at any other census.

Of the 161,993 persons who were returned as suffering from mental infirmity the proportions were :—

106,660 lunatic.
25,405 imbecile.
29,928 feeble-minded.

In 1901, 83,772 were returned as lunatic and 48,882 as imbecile or feeble-minded.

It is pointed out that great difficulty was experienced in obtaining the return, and the figures cannot be accepted as absolutely correct. The Commissioners are frank upon this point, and explain the difficulty of framing suitable forms of enquiry and of getting householders with no technical knowledge to interpret the terms in a uniform way. The same remark applies to the insane, owing to changes in classification, and it is doubtful whether the figures represent a real or only an apparent increase in insanity.

It is difficult in a town like this for an official, however devoted and enthusiastic he may be, not to feel some depression at times, for, in many cases, as fast as one nuisance is remedied another is created owing to the indifference and lack of cleanliness of so many of the inhabitants. No legislation will ever entirely abolish slums and slum life—the causes are too deep—and the remedies must be found in the removal of the economic conditions behind them, and in the moral and spiritual education of the people.

Appended are the Tables required by the Local Government Board, the Home Office, and the County Council, together with a statement by the Sanitary Inspector, giving details of his work.

I am, Gentlemen,

Yours faithfully,

T. RIDLEY BAILEY, M.D., EDIN.,

Medical Officer of Health.

Bilston,

April 7th, 1914.

I commenced my duties on April 21st, and can only give a report of the routine inspection done from that date, see Table A.; the figures for the Sanitary improvements and defects found, see Tables B. and C., are for the whole of the year.

COMPLAINTS.--During the year 80 complaints have been received and dealt with.

TABLE A.

TABLE B.

IMPROVEMENTS MADE IN COMPLIANCE WITH NOTICES SERVED.					
Drains reconstructed	...	...	128	Houses repaired (externally)	... 35
Drains improved or repaired	..	...	62	Lighting and Ventilation provided	49
Yard gullies fixed	...	...	307	Spouting provided or repaired	... 58
Chambers constructed	...	...	166	Roofs repaired	... 28
Water Closets fixed	...	...	351	Overcrowdings abated	... 16
Water Closets repaired or cleansed		30		Out-door premises cleansed or	
Sinks provided	...	...	75	limewashed	... 71
Yards repaved or paving repaired		132		Out-door premises repaired	... 103
Ashbins provided	...	..	120	Animals removed	... 7
Ashpits improved	...	...	28	Offensive accumulations removed	25
Houses cleansed	..	...	60	Other Amendments	... 11
Houses repaired (Plaster, Stairs, Floors, etc.)		123			
TOTAL PREMISES IMPROVED					... 597

TABLE C.

SANITARY DEFECTS FOR WHICH NOTICES HAVE BEEN SERVED.				
The house or part of the house being in a dirty condition	...	...	...	129
The house or part of the house being in a damp condition	..	...	...	150
The house or part of the house being overcrowded	...	...	...	33
The house or part of the house being in a dilapidated condition	..	...	...	83
The house without thorough ventilation or improperly ventilated	...	...	...	109
The water closet being without a proper supply of water	...	...	...	3
The water closet being stopped	...	...	...	38
The urinal being foul or improperly drained	...	...	...	17
The closet accommodation being insufficient	...	..	...	31
The pail closet being improperly situated	...	...	...	18
The privy being in such a state as to be a nuisance	...	...	...	419
The sink being improperly constructed or improperly drained	...	...	...	251
The premises being improperly drained or insufficiently drained	...	...	...	234
The drain being stopped	...	...	...	46
The drainage being defective	...	...	...	29
The eaves being without guttering or the guttering being defective	...	...	...	122
The paving of the yard being defective	...	...	...	65
The walls of the outbuildings being foul	..	...	...	18
The outbuildings being dilapidated	...	...	...	92
The ash receptacle being foul or defective	...	...	...	162
The premises being without proper ash accommodation	...	...	...	110
Accumulation of offensive matter	...	...	...	19
Animals so kept as to be a nuisance	...	...	...	10
Miscellaneous	...	...	...	8

WATER CLOSET ACCOMMODATION.—It is satisfactory to report that steady progress is being made in this direction. I cannot give the exact number of privies, pails, &c., which exist, but have commenced a record of the whole of the Town, and hope to report to you at an early date.

During the year 351 water-closets have been fixed, this number includes those fixed in factories under notice from the Surveyor. 120 ashbins have been fixed since May—there is no record of the number fixed from January to April, but I estimate the number at about 60. 93 vault privies, 119 privy middens, and 98 pails have been abolished.

The supervision of the work of conversion occupies a large amount of time, 578 visits have been made to work in progress and 212 lengths of drain tested. In addition, I invariably meet the owner or builder before the work is commenced.

SANITARY CONVENIENCES USED IN COMMON.—A great deal of trouble is experienced with the flush closets in the poorer parts of the Town, owing to carelessness and neglect on the part of the tenants. I frequently receive complaints from owners who have fixed water-closets and find them choked a short time afterwards. In such cases I visit and caution the tenants, but this is a matter which requires constant attention and inspection.

MEAT AND FOOD INSPECTION.—There are 24 Slaughter-houses on the register, but only 15 of these are in use at present. 727 visits have been paid to these, and 1,470 lbs. of unsound meat destroyed; in each case this was surrendered to me at my request.

MARKET HALL.—95 visits have been made to the Market during the time food was exposed for sale. The quality of meat sold at the lowest stalls is poor, but in no case was any found in such a condition as to warrant seizure. I may add that I make a practice of inspecting this meat on its arrival at the Market, before being cut for sale. The general quality of meat and food sold in the Town is good.

DAIRIES, COWSHEDS AND MILKSHOPS.—There are 12 cowsheds at present in use in the Town to which 47 visits have been made. The sheds generally are kept in a clean and satisfactory condition. 29 persons are registered as purveyors of milk, and 88 visits have been made to the premises. The milk vessels in all cases are kept in a clean condition.

BAKEHOUSES.—There are 24 bakehouses on the register, all of which are occupied—75 visits have been paid to these. The majority are kept in a clean and satisfactory condition. 2 complaints have been received from H.M. Inspector, and 5 notices requiring the premises to be cleansed have been served—these have all been complied with.

WORKSHOPS.—The number of workshops on the register is 81, to which 175 visits have been made. One complaint was received from H.M. Inspector and one notice sent—this has been complied with.

INFECTIOUS DISEASE.—38 visits and enquiries have been made in connection with Infectious Disease, and 43 visits to cases of Tuberculosis. In all cases of Infectious Disease disinfectant and soap are supplied, and in cases of Tuberculosis a weekly supply is given. An inspection is made of the premises in each case and notices served for any defect found.

COMMON LODGING HOUSES.—These have been inspected regularly throughout the year, several sanitary defects being remedied on notice from this Department.

HOUSING TOWN PLANNING &C., ACT, 1909.—In May, I commenced, under the supervision of the Medical Officer of Health, a systematic house to house inspection, a permanent record of each house inspected being kept. The number of houses inspected up to December 31st, being 290, of these 43 were void, 22 had no defects, and in the remaining 225 the following defects were found: Houses being overcrowded 36, houses requiring cleansing 112, plaster defective 62, defective stairs 28, defective floors 46, houses without through ventilation 113, windows defective or not made to open 92, houses being damp 144, roofs defective 83, eaves gutters defective or missing 59.

In all cases where defects are found an Intimation Notice is served on the owner pointing out the necessary requirements. I also invariably arrange to meet the owner or agent on the property which greatly facilitates the work. It is satisfactory to note that in most cases the work required is carried out on receipt of the Intimation Notice. The following repairs have been completed :—

Houses cleansed	...	...	60
Houses repaired internally (floors, stairs, plastering &c.)			90
Houses repaired externally (brickwork pointed, &c.)			35
Ventilation improved	...	...	49
Spouting provided or repaired	...	...	58
Roofs repaired	...	...	28

In addition to the above a large number of houses are at present being repaired.

CLOSING ORDERS.—During the year 26 Closing Orders were served, the particulars of which are set down below.

NEW TOWN WARD.

Situation of Premises.	Result.
19, Price Street	Closed
21, Price Street	Closed
23, Price Street	Closed

HIGH TOWN WARD.

Situation of Premises.	Result.
46, High Street	Closed
1, back Smith Street	Closed
7, back Smith Street	Closed
3, Smith Street	Still occupied
5, Smith Street	Closed
7, Smith Street	Closed
13, back Smith Street	Closed
15, back Smith Street	Closed
17, back Smith Street	Still occupied
15, Smith Street	Closed

BRADLEY WARD.

Situation of Premises.	Result.
19, Lower Bradley	Closed
21, Lower Bradley	Closed
Un-numbered house on Canal Side	Closed

TOWN HALL WARD.

Situation of Premises.		Result.
38, Willenhall Road	...	Closed
40, Willenhall Road	...	Closed
42, Willenhall Road	...	Closed
11, back 19, Bristol Street	...	Closed
House, rear 2, Vine Street	...	Closed
House, rear 2, Vine Street	...	Closed
4, Orchard	...	Closed
7, Orchard	...	Closed
8, Orchard	...	Closed
House, Stores Yard, Church Street	...	Closed
House, Stores Yard, Church Street	...	Closed

There were no Closing Orders for Ettingshall Ward, and no Demolition Orders were served during 1913.

CANAL BOATS INSPECTION.—The following is the report of the work done under the Canal Boats Acts and regulations made thereunder during the year 1913.

During the year 31 boats were inspected, of these 26 were found to be in a satisfactory condition, but on the remaining 5 were found 5 infringements of the Acts and Regulations.

The number of boats inspected is low, owing to the change of Inspectors; only one boat having been inspected previous to the month of May, when I commenced my duties.

On the boats inspected there were 37 men, 21 women, and 30 children. The boats generally were in a clean and satisfactory condition.

On no occasion during inspection has admission been refused, and I have received every assistance from the masters.

INFRINGEMENTS OF THE ACTS AND REGULATIONS WITH RESPECT TO :—

(a) Registration	...	...	...	none
(b) Notification of change of master	...	...	...	none
(c) Certificates	..	...	...	one
(d) Marking	...	...	...	one
(e) Overcrowding	...	...	...	one
(f) Separation of sexes	...	...	...	none
(g) Cleanliness	...	...	...	none
(h) Ventilation	...	..	...	none
(i) Painting	...	...	...	none
(j) Provision of water cask	...	...	...	none
(k) Removal of bilge water	...	...	...	none

(l) Notification of infectious disease	...	...	none
(m) Admittance of Inspector	...	...	none
(n) Leaky cabins	...	...	two

The infringements have been dealt with by means of Complaint Forms.

It has not been necessary to take legal proceedings in any case.

There have been no cases of Infectious Disease, and no boats have been detained.

I am,

Yours obediently,

FRED BARNETT, A.R. San. I., M.S.I.A.,

Sanitary Inspector.

TABLE I.

VITAL STATISTICS OF WHOLE DISTRICT OF BILSTON.
DURING 1913 AND PREVIOUS YEARS.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.		Total Deaths Registered in District				Deaths of Non-residents registered in the District.	Deaths of Residents registered in Public Institutions beyond the District.	NET DEATHS AT ALL AGES BELONGING TO THE DISTRICT	
				UNDER ONE YEAR OF AGE		DEATHS AT ALL AGES. TOTAL.					
		Number	Rate per 1000	Number	Rate per 1000 Births regist'd	Number	Rate per 1000			Num-ber.	Rate 1,000
1	2	3	4	5	6	7	8	9	10	11	12
1908	24,500	882	35.28	145	167	408	16.3		57	465	18.6
1909	25,000	826	32.7	118	142	427	16.9		64	491	19.4
1910	25,200	830	32.1	98	118	332	13.1		66	398	15.7
1911	25,681	825	32.5	109	130.5	410	15.9	6	75	479	18.6
1912	25,681	808	31.46	121	149.7	403	15.69	4	54	453	17.64
1913	26,076	886	33.97	137	154.6	438	16.78	3	73	508	19.48

Rates in columns 4, 8, and 12 calculated per 1000 of estimated population.

Area of District in Acres—1,876. Total population at all ages—25,681 } *At Census,*
(Exclusive of Area covered by water) Number of inhabited houses—5,281 } *1911*
Average number of persons per house—4.86 } *(of Census, Vol. V.)*

TABLE II.

CASES OF INFECTIOUS DISEASES NOTIFIED DURING THE YEAR.

NOTIFIABLE DISEASE.	Cases notified in whole District.								Total cases notified in each locality					Total Cases removed to Hospital.
	At all Ages	Under 1 Year	1 to 5 Years	5 to 15 Years	15 to 25 Years	25 to 45 Years	45 to 65 Years	65 years & upwards	New Town Ward	High Town Ward	Town Hall Ward	Bradley Ward	Ettingshall Ward	
Diphtheria (including Membranous Croup) ...	10	1		6	1	2			3	2	3		2	5
Erysipelas ...	14			1	3	3	6	1	1	4	6	1	2	
Scarlet Fever ...	28		12	16					3	14	3	4	4	26
Enteric Fever ...	2			1		1							2	1
Puerperal Fever ...														
Pulmonary Tuberculosis	75		1	14	13	33	13	1	10	18	17	16	14	
Other forms of Tuberculosis	25	2	8	9	4	1	1		3	3	6	9	4	
Ophthalmia Neonatorum ...	11	11							1	3		2	5	
Totals ...	165	14	21	47	21	40	20	2	21	44	35	32	33	32

Bilston Isolation Hospital for Scarlet Fever. South Staffs. Conjoint Small-pox Hospital (used as a Sanatorium for Pulmonary Phthisis).

TABLE III.

CAUSES OF, AND AGES AT DEATH DURING THE YEAR 1913.

CAUSE OF DEATH.	Deaths at the subjoined ages of "Residents" whether occurring in or beyond the District.								Total Deaths whether of "Residents" or "Non-Residents" in Institutions in the District.
	All ages.	Under 1 year.	1 and under 2.	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	
Enteric Fever	1						1		1
Measles	38	7	10	15	6				38
Scarlet Fever	2			2					2
Whooping Cough									
Diphtheria and Membranous Croup ..	1	1							1
Epidemic Influenza	6	1						3	6
Erysipelas									
Phthisis (Pulmonary Tuberculosis)...	16					2	12	2	16
Tuberculous Meningitis	6	3	2			1			6
Other Tuberculous Diseases	6	1	1	2			1	1	6
Cancer, malignant disease... ..	1							1	1
Bronchitis	68	30	3	2				12	68
Pneumonia (all forms)	47	6	15	8	1	6	3	5	47
Other diseases of Respiratory organs	4			1			1	2	4
Diarrhœa and Enteritis	42	20	10	6	1			4	42
Appendicitis and Typhlitis	3			1		1			3
Cirrhosis of Liver	2							2	2
Alcoholism									
Nephritis and Bright's Disease ...	6	1	1					2	6
Puerperal Fever									
Other accidents & diseases of Preg- nancy and Parturition	2						1	1	2
Congenital Debility & Malformation, including Premature birth	38	38							38
Violent Deaths, excluding Suicide ...	5			1	1		1	1	5
Suicide	4							4	4
Other Defined Diseases	137	23	3	2	5	6	8	33	137
Diseases ill-defined or unknown ...	3	1						2	3
Totals	438	137	44	42	14	16	28	72	438

TABLE IV.—INFANTILE MORTALITY DURING THE YEAR 1913.

Deaths from stated causes at various Ages under 1 Year of Age.

CAUSE OF DEATH.		Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 1 month.	1-3 months.	3-6 months.	6-9 months.	9-12 months.	Total deaths under 1 year.
1. Common Infectious Diseases.											
{	Measles						1	1	2	3	7
	Whooping Cough ...										
	Diphtheria and Croup ...							1			1
2. Diarrhœal Diseases.											
{	Diarrhœa, not tuber'ous, all forms						2	6	2	2	12
	Enteritis, Mucœ-ent's., Gastro-ent's.						4		2	2	8
	Gastritis, Gastro-intestinal Catarrh										
3. Tuberculous Diseases											
{	Tuberculous Meningitis ...								2	1	3
	Tuberculous Peritonitis :)										
	Tabes Mesenterica)										
	Other Tuberculous Diseases ...							1			1
4. Wasting Diseases.											
{	Premature birth ...	12	3			15					15
	Atrophy, Debility, Marasmus ...	4	4	4		12	7	1		3	23
	Congenital defects ...										
	Injury at Birth ...										
5. Other Causes.											
{	Erysipelas ...										
	Syphilis ...		1			1	2				3
	Rickets ..										
	Meningitis (not Tuberculous) ...										
	Convulsions ..										
	Bronchitis ...	1		1	2	4	6	9	7	4	30
	Laryngitis ...										
	Pneumonia (all forms) ...						2	1	2	1	6
	Suffocation, overlying ...	1				1					1
	Atelcetasis ...										
	Other causes ...	5	4	4	3	16	6	2	1	2	27
		23	12	9	5	49	30	22	18	18	137

Nett Births in the	{	legitimate	868
year 1913		illegitimate	18

Nett Deaths in the year 1913

In recording the facts under the various headings of Tables I, II, III, & IV, attention has been given to the notes on the Tables.

T. RIDLEY BAILEY, M.D.,

Medical Officer of Health.

TABLE V. FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES,
AND HOMEWORK.

1.—INSPECTION.

Including Inspection made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories (including Factory Laundries)	250	3	None
Workshops (including Workshop Laundries)		12	None
Workplaces (other than Outwork- ers' premises included in Part 3 of this Report)			None
Total ...	250	15	None

2.—DEFECTS FOUND.

Particulars.	Number of Defects.			Number of Prosecutions.
	Found.	Remedied.	Referred to H. M. Inspector.	
<i>Nuisances under the Public Health Acts:—</i>				
Want of cleanliness . . .	7	7		None
Want of ventilation	1	1		"
Overcrowding	1	1		"
Want of drainage of floors ...				
Other nuisances..				
<i>Sanitary accommodation—</i>				
Insufficient				
Unsuitable or defective ...	3	2		"
Not separate for sexes ...				
<i>Offences under the Factory and Workshop Act:—</i>				
Illegal occupation of under- ground bakehouses (s. 101)				
Breach of special sanitary re- quirements for bakehouses (s. 97 to 100)	5	5		"
	17	16		None

3.—HOME WORK.

Class.	Number.	
<i>List of Outworkers :—</i>	Number of	
	Lists.	Outworkers
		Residing in our District
Lists received	2	4
Addresses of outworkers { forwarded to other Authorities received from ,, ,,	20	
Inspections of outworkers' premises	4	

4.—REGISTERED WORKSHOPS.

Class.	Number.
Workshops on the Register (s. 131) at the end of 1913.	
Important classes of workshops, such as workshop bake-houses, viz. :—	
Dressmakers and Milliners	22
Carpenters and Cabinet Makers	14
Bootmakers and Repairers	21
Bakers and Confectioners	24
Miscellaneous	24
Total number of workshops on Register	105

5.—OTHER MATTERS.

Class.	Number.
Matters notified to H.M. Inspector of Factories :—	
Failure to affix Abstract of the Factory and Workshop Acts (s. 133, 1901)	3
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5, 1901) :—	
Notified by H.M. Inspector	6
Reports (of action taken) sent to H.M. Inspector ...	6
Underground Bakehouses (s. 101) :—	
Certificates granted during the year	None.
In use at end of the year	„

